Lot 9—Fields 1, 3, 5, 6 and 9

FIELD WORKSHEET #1
GENERAL FORESTRY INFORMATION

Lot # 9 **Total Acres:** 278 **Field Number(s):** 1, 3, 5, 6, & 9 **Acres:** 98 **Date:** 9/15/03

Reported By: Earth Spirit Educational Services, Inc.

Principal Species	DBH* (inches)	Density (Heavy, Medium, Light)	Growth Rate**	Age Class (Even/Mult.)	Age	Heights (feet) Crown/Usable		Condition (Good, Fair, Poor)
Scotch Pine	P-14	Light - Medium	30	Even	73	68		Poor
Sugar Maple	12-20	Medium - Heavy	10	Multiple		79	32	Good
Black Cherry	14-25	Light	12	Multiple		82	45	Good
American Beech	12-20	Light	17	Multiple		78	36	Good
White Pine	12-16	Light	20	Even	73	78		Poor

* "S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions
** Represents the most recent growth rings per inch from a core sample

Comments
These fields represent mature Scotch Pine (Pinus sylvestris) Plantations that have transitioned into Hardwood Forests dominated by Sugar Maple (Acer saccharum) and other mixed hardwoods. The Pines that remain in these fields are in various stages of decline. Note: Field Number 8 does not exist (compare the 1965 Conservation Plan Map with the 2003 GIS map).

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems
These fields contain two southerly flowing intermittent streams.

Fire Lane Status
The Fire Break in these fields exists along the southwest border, is approximately 20 feet wide and in need of general crown pruning.

Lot 9—Fields 1, 3, 5, 6 and 9

FIELD WORKSHEET #2
ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of medium - heavy density and is characterized by Sugar Maple (Acer saccharum), Black Cherry (Prunus serotina), American Beech (Fagus grandifolia) and varying densities of Pines (Pinus spp.).

Subcanopy

The subcanopy is of medium density and is represented primarily by Sugar Maple (Acer saccharum), American Beech (Fagus grandifolia) and Hophornbeam (Ostrya virginiana).

Shrub Layer

The shrub layer is of light density and includes Brambles (Rubus spp), Dogwoods (Cornus spp.) and Tartarian Honeysuckle (Lonicera tartarica).

Herbaceous Layer

The herbaceous layer is of medium density and is dominated by a variety of ferns such as Evergreen Woodfern (Dryopteris intermedia), Christmas fern (Polystichum acrostichoides) and Sensitive fern (Onoclea sensibilis) along with a medium - heavy density of hardwood seedlings.

Successional Status

These fields represent mature Scotch Pine (Pinus sylvestris) Plantations that have transitioned into Hardwood Forests. The Pines (Pinus spp.) in these fields are presently experiencing significant decline.

Botanical Concerns - includes both invasive and protected species

Invasive: Tartarian Honeysuckle (Lonicera tartarica)

Protected: All ferns listed under "Herbaceous Layer" except Sensitive fern (Onoclea sensibilis).

Lot 9—Fields 2, 10

FIELD WORKSHEET #1
GENERAL FORESTRY INFORMATION

Lot # 9 **Total Acres:** 278 **Field Number(s):** 2, 10 **Acres:** 43 **Date:** 09/15/03

Reported By: Earth Spirit Educational Services, Inc.

Principal Species	DBH* (inches)	Density (Heavy, Medium, Light)	Growth Rate**	Age Class (Even/Mult.)	Age	Heights (feet) Crown/Usable	Condition (Good, Fair, Poor)
Norway Spruce	12-17	Heavy	17	Even	73	73	Good
Black Cherry	13-25	Light	13	Multiple		87 36	Good

* "S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions
** Represents the most recent growth rings per inch from a core sample

Comments
These fields represent mature Norway Spruce (Picea abies) Plantations with a light intrusion of mature Black Cherry (Prunus serotina) in the canopy along with a very light subcanopy of Sugar Maple (Acer saccharum) and American Beech (Fagus grandifolia).

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems
Field Number 10 contains two southerly flowing intermittent streams.

Fire Lane Status
The Fire Break in these fields exists along the southern border of Field Number 10, is approximately 18 feet wide and in need of general clearing and pruning.

Lot 9—Fields 2, 10

FIELD WORKSHEET #2
ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of medium - heavy density and is characterized by Norway Spruce (Picea abies) and Black Cherry (Prunus serotina).

Subcanopy

The subcanopy is of very light density and is represented by Sugar Maple (Acer saccharum), American Beech (Fagus grandifolia) and Hophornbeam (Ostrya virginiana).

Shrub Layer

The shrub layer is generally not present.

Herbaceous Layer

The herbaceous layer is of light density and is dominated by a variety of ferns such as Evergreen Woodfern (Dryopteris intermedia), Christmas fern (Polystichum acrostichoides) and New York fern (Thelypteris noveboracensis).

Successional Status

These fields represent mature Conifer Plantations in the early - mid stages of hardwood succession.

Botanical Concerns - includes both invasive and protected species

Invasive: None

Protected: All ferns listed under "Herbaceous Layer".

Lot 9—Fields 4, 7

FIELD WORKSHEET #1
GENERAL FORESTRY INFORMATION

Lot # 9 **Total Acres:** 278 **Field Number(s):** 4, 7 **Acres:** 121 **Date:** 09/15/03

Reported By: Earth Spirit Educational Services, Inc.

Principal Species	DBH* (inches)	Density (Heavy, Medium, Light)	Growth Rate**	Age Class (Even/Mult.)	Age	Heights (feet) Crown/Usable		Condition (Good, Fair, Poor)
Sugar Maple	12-43	Medium - Heavy	17	Multiple		78	42	Good
American Beech	12-26	Light	17	Multiple		86	31	Fair
Black Cherry	16-26	Light	14	Multiple		70	28	Fair
Eastern Hemlock	12-29	Light	25	Multiple		84		Good

* "S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions
** Represents the most recent growth rings per inch from a core sample

Comments
These fields represent mature Hardwood Forests dominated by Sugar Maple (Acer saccharum) and a variety of mixed hardwoods. Eastern Hemlock (Tsuga canadensis), generally of light density, is of significant concentration along the ravine edge in Field Number 4.

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems
Field Number 4 contains three southerly flowing four season streams.

Fire Lane Status
None

Lot 9—Fields 4, 7

FIELD WORKSHEET #2
ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of medium - heavy density and is characterized by Sugar Maple (Acer saccharum), American Beech (Fagus grandifolia) and Black Cherry (Prunus serotina).

Subcanopy

The subcanopy is of medium density and is represented by a variety of hardwoods.

Shrub Layer

The shrub layer is of light density and includes Brambles (Rubus spp.) and Dogwoods (Cornus spp.).

Herbaceous Layer

The herbaceous layer is of light - medium density and is dominated by a variety of ferns and clubmosses such as Evergreen Woodfern (Dryopteris intermedia), New York fern (Thelypteris noveboracensis), Hayscented fern (Dennstaedtia punctilobula), Christmas fern (Polystichum acrostichoides), Tree Clubmoss (Lycopodium obscurum), Bristly Clubmoss (Lycopodium annotinum) and Running Pine (Lycopodium complanatum).

Successional Status

These fields represent mature Hardwood Forests dominated by Sugar Maple (Acer saccharum) and other subdominant hardwoods.

Botanical Concerns - includes both invasive and protected species

Invasive: None

Protected: All ferns and clubmosses listed under "Herbaceous Layer" except Hayscented fern (Dennstaedtia punctilobula).

Lot 9 Summary and Recommendations

FIELD WORKSHEET #3
WILDLIFE SUMMARY

Lot # 9 offers a good variety of habitats for diverse populations of wildlife species. Field Numbers 1-3, 5, 6 and 8-10 all represent Conifer Plantations in various stages of hardwood succession while Field Numbers 4 and 7 represent mature Hardwood Forests.

During a period of one day, staff ecologists recorded a variety of wildlife observations focused upon actual sightings and other wildlife "signs". The following list represents a brief overview of those encounters focused upon Mammals, Birds and Reptiles/Amphibians.

Mammals

Whitetail Deer (Odocoileus virginianus)
Gray Squirrel (Sciurus carolinensis)
Red Squirrel (Tamiasciurus hudsonicus)
Red Fox (Vulpes fulva)
Eastern Chipmunk (Tamias striatus)

Birds

Wild Turkey (Meleagris gallopavo)
Dark-eyed Junco (Junco hyemalis)
American Robin (Turdus migratorius)
Redtail Hawk (Buteo jamaicensis)
Black-capped Chickadee (Parus atricapillus)
Blue Jay (Cyanocitta cristata)
White Breasted Nuthatch (Sitta canadensis)
Turkey Vulture (Cathartes aura)

Reptiles/Amphibians

Spring Peeper (Hyla crucifer)
Red-spotted Newt (Notophthalmus viridescens)
American Toad (Bufo americanus)

FIELD WORKSHEET #4
RECOMMENDATIONS

The following recommendations for Lot # 9 of the Erie County Forestry Management Plan are based upon field data collected by Earth Spirit Educational Services, Inc. in the areas of Forest Ecology, Wildlife Biology and general Ecology.

Field Numbers 1, 3, 5, 6 and 9

Description - These fields represent mature Scotch Pine (Pinus sylvestris) Plantations that have transitioned into Hardwood Forests dominated by Sugar Maple (Acer saccharum) and other mixed hardwoods. The Pine (Pinus spp.) that remain in this field are in various stages of decline.

Recommendations - These fields of mature Scotch Pine are currently experiencing significant hardwood intrusions, slow growth and decline. As a result of their general poor quality, these fields should remain without treatment. Selected hardwoods, especially Sugar Maple, may receive a selective thinning.

Field Numbers 2 and 10

Description - These fields represent Norway Spruce (Picea abies) Plantations with light intrusions of mature Black Cherry (Prunus serotina) in the canopy along with a very light subcanopy of Sugar Maple (Acer saccharum) and American Beech (Fagus grandifolia).

Recommendations - These fields of mature Norway Spruce Plantations should be actively managed. The Black Cherry should remain without treatment in order to provide an adequate "seed tree" population.

Field Numbers 4 and 7

Description - These fields represent mature Hardwood Forests dominated by Sugar Maple (Acer saccharum) and a variety of mixed hardwoods.

Recommendations – These fields, due to the steep topography and numerous streams, generally offer poor accessibility. The hardwoods present (except for Sugar Maple) are also of light density and generally fair quality. As a result, these fields should remain without treatment in order to prevent erosion, protect the watershed and provide wildlife habitat.

Lot 9
Soils, Waterways and Topography

Soils

The soils on Lot 9 are predominately moderately well drained Langford Channery Silt Loam (LfC and LfD), with 8-25% slopes, and a firm fragipan at a depth of 15 to 20 inches and slow to very slow permeability below the fragipan. These soils are highly erodible. Along the drainage gullies the soils are excessively well drained to well drained Manlius Very Channery Silt Loam (MbE), with slopes of 25-35%. These soils are highly erodible and have moderately rapid permeability. Soil disturbing activities should be conducted during dry seasons or after soil freeze to minimize soil loss.

Waterways and Topography

Lot 9 lies along the side of a typical U-shaped valley, and drops over 300 feet in elevation from northeast to southwest, containing several steep-walled ravines. In general, the topography is fairly steep, except for a gently sloping upland area in the northwestern corner. Access to the steep stream channels is difficult, and most likely precludes soil disturbing activities. A buffer should be maintained on each of the streams and gullies on the lot to protect the soil resource and water quality of the streams and Eighteenmile Creek, a Class A stream protected as a drinking water source. The primary pollutant degrading the Creek is sediment from poorly maintained streambanks. Other pollutant sources include agriculture, construction, urban runoff, resource extraction and on-site waste treatment.

Lot 9
Forest Stewardship Recommendations

Stand A (Fields 1, 3, 5, 6, 9) **LOW PRIORITY**

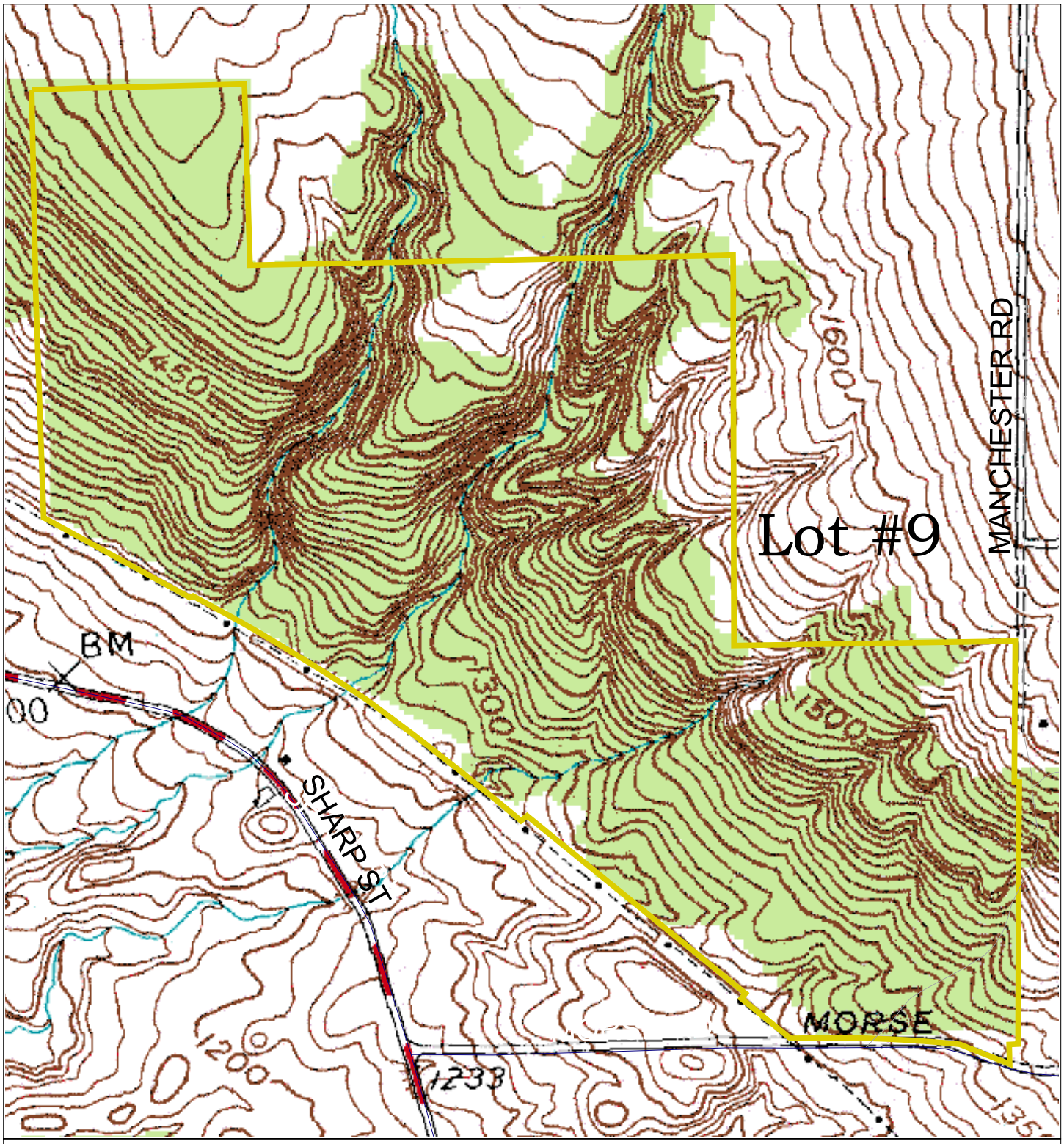
These are areas of declining Scots pine plantations with ingrowth of native hardwoods. Hardwood species include sugar maple, black cherry, elm and yellow birch. The stand has low density with very branchy trees. Wild grapevines are very common. Dogwood and multiflora rose shrubs and black cherry seedlings are common. In some sections, the Scots pines are very scattered since many have died. Pine diameters are up to 12", and hardwood maximum diameters are in the large pole to small sawtimber range. Terrain is fairly steep (8-25% slope) with a southwestern exposure and somewhat poorly drained soils. Because of the low stand density and scarcity of quality merchantable trees it would be best to allow these areas to continue succession into northern hardwoods without further management activity. These areas can now be utilized as wildlife habitat, since the dense shrubs and grapes provide good cover and fruits for a variety of wildlife. Any future management for timber regeneration objectives should be preceded by removal of wolf trees and competing grapevines about 2-3 years prior to treatment. Recheck stand density in 10 years.

Stand B (Fields 2, 10) **HIGH PRIORITY**

These areas are mature plantations of Norway spruce. The plantations have not been thinned, so the stand density is high and live crown ratios are only around 20%. Diameters of dominant and codominant trees average about 13" with maximums around 17". There are very sparse medium to large black cherry sawtimber trees and very few saplings. The mature conifers should be scheduled for patch harvesting to continue the transition to native hardwoods. The scattered sawlog hardwoods should be left for seed trees (5-10/ac if possible), which then could be salvaged about 5-8 years after the conifers are cut. Recheck 5 years after conifer harvest.

Stand C (Fields 4, 7) **MEDIUM PRIORITY**

This is an uneven-aged stand of northern hardwoods containing predominantly sugar maple, black cherry, beech, hemlock, with lower quantities of yellow birch, bitternut hickory and basswood. Some sections have heavy growth of wild grapevines. The understory is light, but there are sections with dense sugar maple seedlings under 6" tall. The stand density is moderate. Maximum diameters are large sawtimber, up to 25-30"+. It may be possible to conduct a light, selection harvest in this stand, across many diameters, reducing the basal area by no more than 1/4. Light timber stand improvement in the form of grapevine control should precede the harvest to remove this type of seedling competition. Insist upon no-cut buffers about 100-150' wide along property boundaries and especially, the steep-sided ravines should not be cut. These steep slopes have some spring seeps, and that wildlife environment should be preserved. Two of the ravines have Class A protected streams, so buffers should be left, and crossing or disturbance would need a permit. It may be best to cross only at the powerline trail at the bottom of the slope. Where the powerline trail crosses the northern-most Class A stream there is a severe washout of old concrete culverts. This erosion should be addressed and the banks protected. The long, forested slopes could also present erosion problems during logging, so there should be strict adherence to the Best Management Practices. Recheck 15 years after any logging.



Erie County Forest Management Plan

USGS Topographic Quadrangle

Map Prepared By:
Erie County Soil and Water Conservation District

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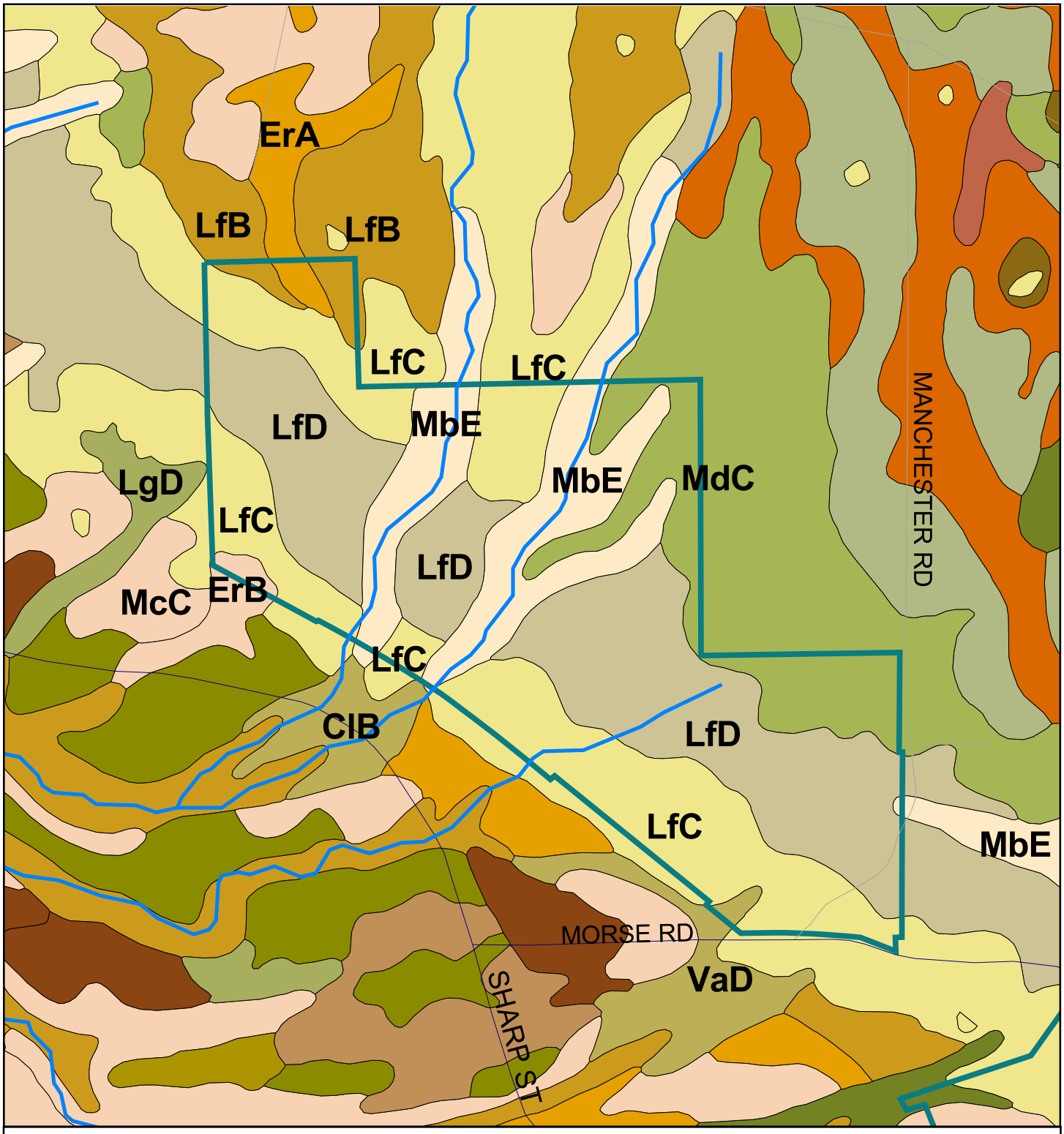

Erie County Forest Management Plan

Lot #9 - Soil Types

Map Prepared By:
Erie County Soil and Water Conservation District

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Erie County Soil and Water Conservation District & USDA Natural Resources Conservation Service

Brief Soil Descriptions – Lot 9

For further information refer to the *Soil Survey of Erie County, New York*.

Symbol **Name / Description**

ClB Chenango Channery Silt Loam, Fan, 3 to 8 Percent Slopes

Deep, nearly level to gently sloping, well-drained, low lime, channery silt loam soil formed in gravel and sand. The available water capacity is low. Permeability is moderate to rapid in the surface soil and subsoil and generally rapid or very rapid in the substratum. PRIME FARMLAND, POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIs, NYS SOIL GROUP-2b, K=.24, T=3

ErA Erie Channery Silt Loam, 0 to 3 Percent Slopes

Deep, nearly level, somewhat poorly drained, medium lime, channery silt loam formed in coarse loamy glacial till. It has a very firm fragipan at depth of 14 to 40 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and very slow in the fragipan. CAPABILITY CLASS-IIIw, NYS SOIL GROUP-6b, K=.24, T=3

ErB Erie Channery Silt Loam, 3 to 8 Percent Slopes

Deep, gently sloping, somewhat poorly drained, medium lime, channery silt loam formed in coarse loamy glacial till. It has a very firm fragipan at depth of 14 to 40 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and very slow in the fragipan. POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIw, NYS SOIL GROUP-6b, K=.24, T=3

LfB Langford Channery Silt Loam, 3 to 8 Percent Slopes

Deep, gently sloping, moderately well drained and well drained, medium lime, channery silt loam soil formed in glacial till deposits derived mainly from limestone and shale. There is a firm, dense fragipan 15 to 20 inches deep which is approximately 24 inches thick. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow below the fragipan. POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIw, NYS SOIL GROUP-3b, K=.20, T=3

LfC Langford Channery Silt Loam, 8 to 15 Percent Slopes

Deep, sloping, moderately well drained and well drained, medium lime, channery silt loam soil formed in glacial till deposits derived mainly from limestone and shale. There is a firm, dense fragipan 15 to 20 inches deep which is approximately 24 inches thick. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow below the fragipan. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIe, NYS SOIL GROUP-6b, K=.20, T=3

LfD Langford Channery Silt Loam, 15 to 25 Percent Slopes

Deep, moderately steep, moderately well drained and well-drained, medium lime, channery silt loam soil formed in glacial till deposits derived mainly from limestone and shale. There is a firm, dense fragipan 15 to 20 inches deep which is approximately 24 inches thick. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow below the fragipan. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IVe, NYS SOIL GROUP-7b, K=.20, T=3

LgD Langford Channery Silt, Silty Substratum, 15 to 25 Percent Slopes

Deep, moderately steep, moderately well drained and well-drained, medium lime, channery silt loam soil formed in glacial till deposits underlain by silty lake sediments. There is a firm, dense fragipan 15 to 20 inches deep which is approximately 24 inches thick. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow below the fragipan. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IVe, NYS SOIL GROUP-7b, K=.20, T=3

MbE Manlius Very Channery Silt Loam, 25 to 35 Percent Slopes

Moderately deep, steep, excessively well drained to moderately well drained, low lime, shaley silt loam soil formed in very shaly glacial till 20 to 40 inches thick over shale bedrock. The available water capacity is low to moderate. Permeability is generally moderately rapid above the bedrock. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-VIe, NYS SOIL GROUP-8a, K=.28, T=2

McC Mardin Silt Loam, 8 to 15 Percent Slopes

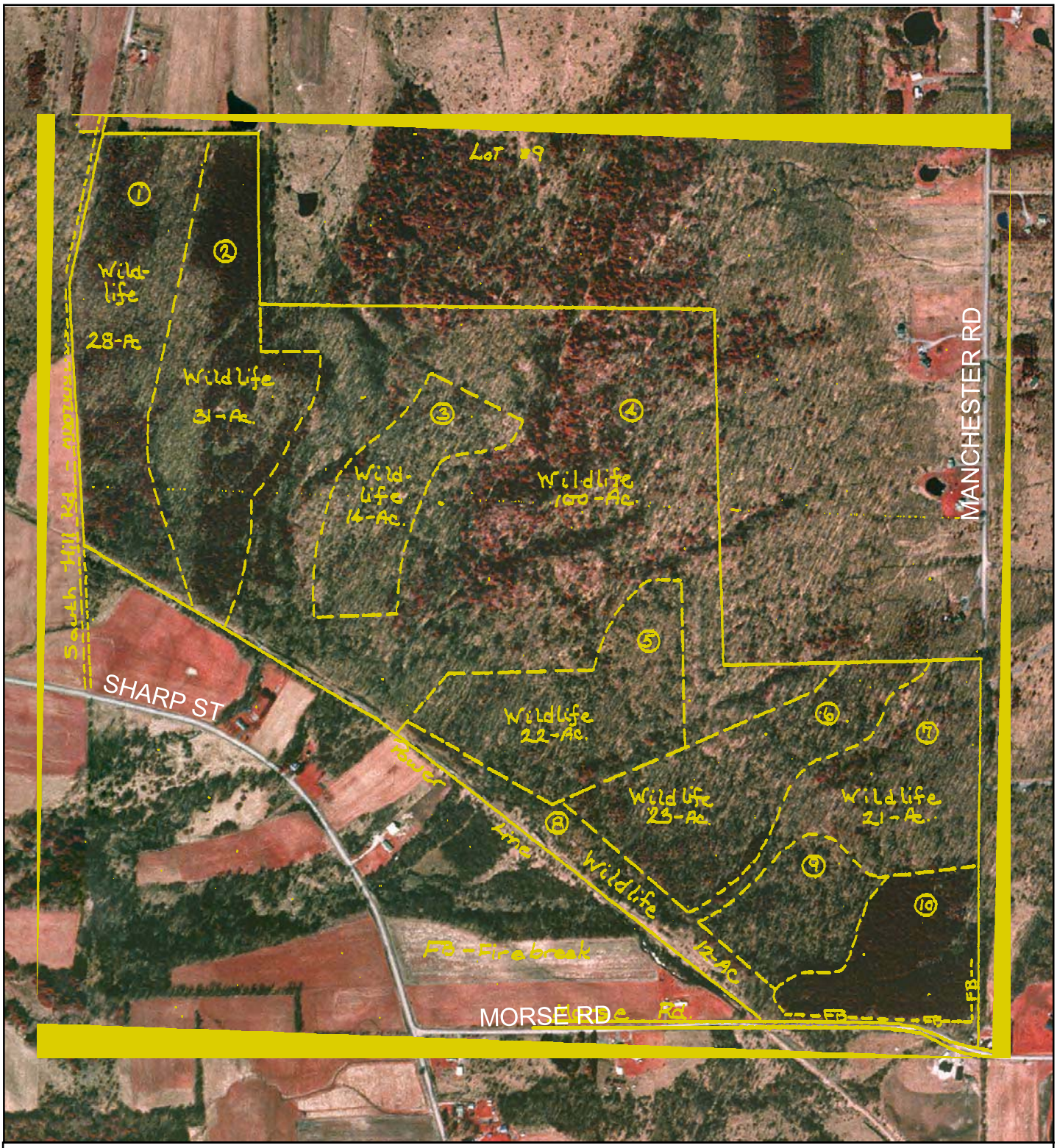
Deep, sloping, moderately well drained and well drained, low lime, silt loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 16 to 50 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIe, NYS SOIL GROUP-6b, K=.32, T=3

MdC Mardin Channery Silt Loam, 8 to 15 Percent Slopes

Deep, sloping, moderately well drained and well drained, low lime, channery silt loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 16 to 50 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIe, NYS SOIL GROUP-6b, K=.24, T=3

VaD Valois Gravelly Silt Loam, 15 to 25 Percent Slopes

Deep, moderately steep, well drained, low lime, gravelly silt loam soil formed in coarse loamy glacial till. The available water capacity is low to moderate. Permeability is moderate to rapid. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IVe, NYS SOIL GROUP-6b, K=.24, T=3



1965 Conservation Plan Map

Erie County
Forest Management Plan

Lot #9

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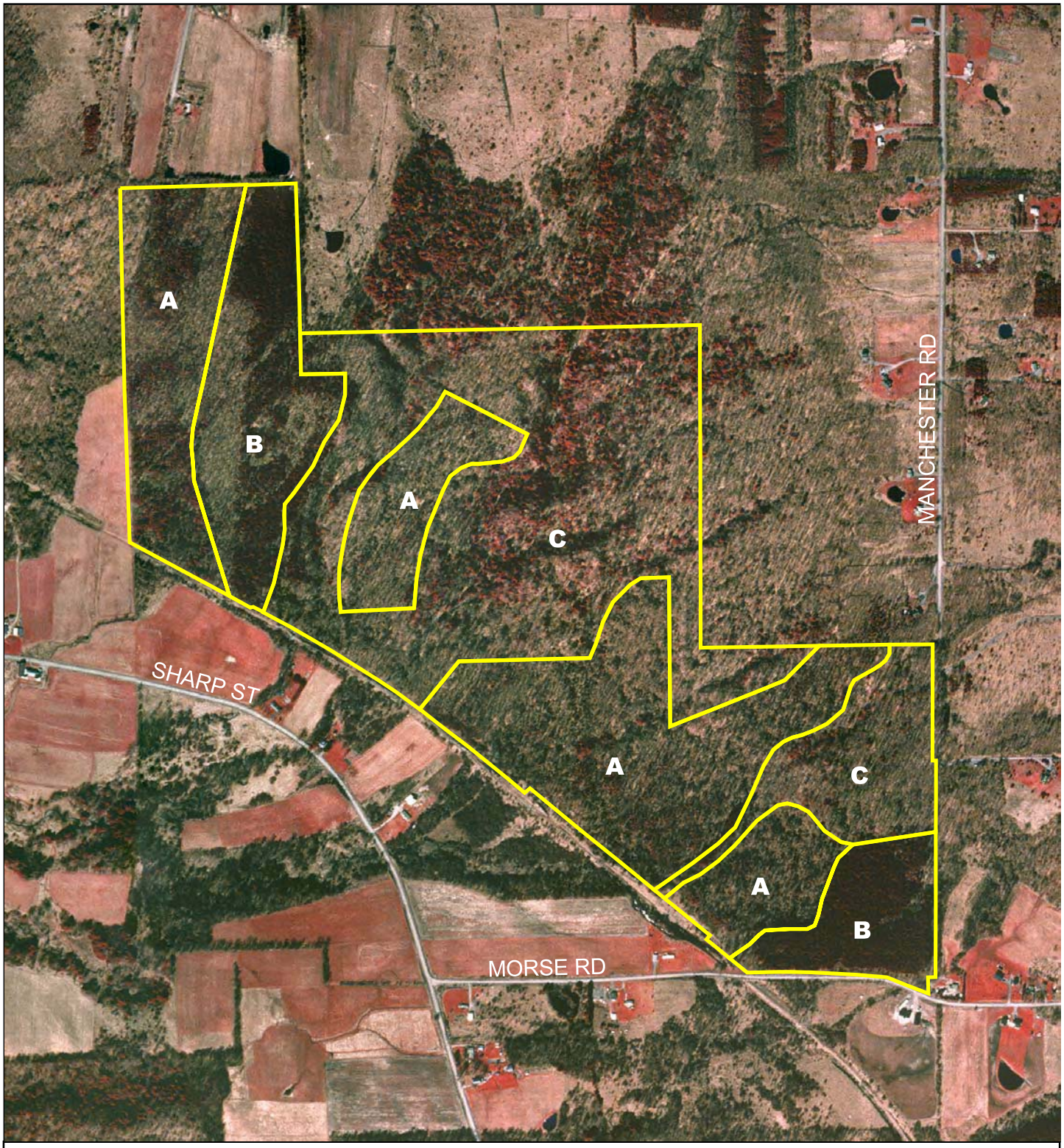
Map Prepared By:
Erie County Soil and Water
Conservation District

* Basemap Source: 1995 Color IR Orthophotography



2003 Stewardship Recommendation Map

Lot #9

Erie County
Forest Management Plan

Map Prepared By:
Erie County Soil and Water
Conservation District

* Basemap Source: 1995 Color IR Orthophotography

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